

Ener-In-Town Project Summary

Final Results



ENER-in-TOWN

The ENER-in-TOWN project addresses the need which has been detected to establish greater control over energy consumption in municipally-owned buildings, by providing a solution which will enable the two existing barriers to be eliminated: lack of detailed knowledge on consumption figures and lack of qualified local personnel with the capacity to propose improvement actions. The main objective of the project is to reduce energy consumption in municipal public buildings through continuous monitoring over the Internet, introduction of low-cost measures and establishment of minimum standards to be met by new amenities and buildings. The project had three phases:

- Establish monitoring of energy consumption using the existing network infrastructure and the internet as a communications channel.
- Train Municipal staff on energy management. This included publication of an energy efficient procurement guide to aid the municipal energy manager.
- Implement low cost energy saving measures.

Case Studies:

One of the key outcomes of the project is a large number of case studies that focus on many different building types and many different low cost and medium cost measures that have been implemented in these buildings. These will provide the casual user with real life examples of energy savings measures and their impact.

Key Conclusions:

Monitoring:

- A technically difficult task to complete over the internet that should be completed by experts, or expertise needs to be developed.
- Simple methods of communications like GSM and Radio, while being more expensive to run, are both more reliable and cost less labour to install. Access to IT systems are restricted and difficult.
- Multiple contractors for a complicated data based project is not ideal. Turnkey solutions are best.

Establishing and Training the Energy Managers:

- Need committed individuals.
- Management buy-in is essential.
- Training is insufficient, energy management practises are required.

Saving:

- There are always low cost measures available to save energy. (Identifying low cost measures is easy).
- Some measures are easy to implement (EE lighting) but bad habits are hard to break.
- Money is scarce for investment in Energy.

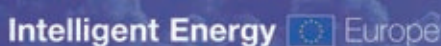
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Visit www.enerintown.org for case studies on:

- Office Buildings
- Schools
- Swimming Pools
- Sports Facilities



Supported by



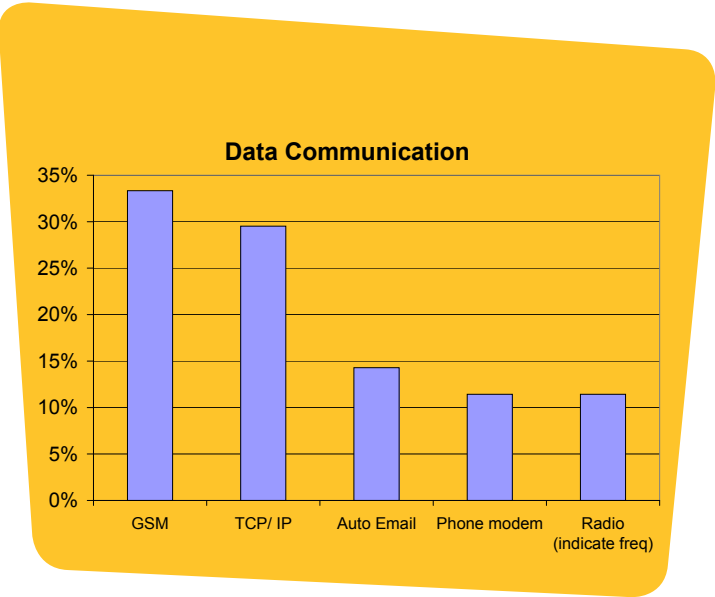
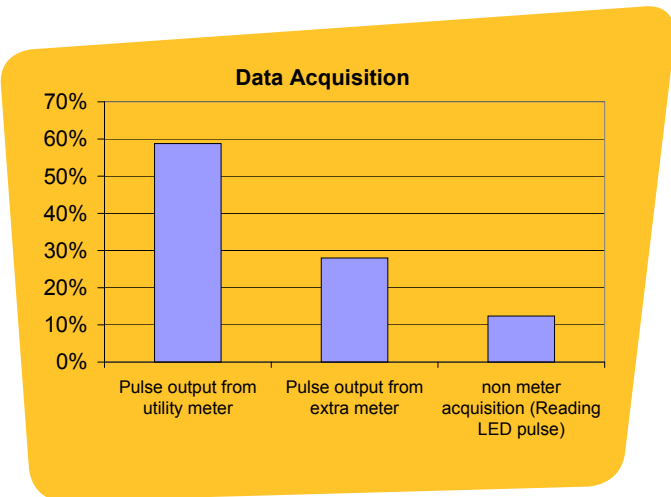
All of the municipalities concerned are continuing to participate in this model of energy management into the future, which underscores the success of the project.

For a full in depth analysis of conclusions, Details/ Models of Agreements, Energy Management Courses, The full Energy Efficient Procurement Guide and lots more visit www.ener-in-town.org

How were the buildings monitored, data collected and analysed:

The energy was read predominantly from utility meters, some extra meters were installed or already available where utilities did not have pulse outputs available (12%), or where these outputs were very expensive to get (24%). The additional meters were either standard utility type meters, or devices that converted a led flash to a pulse or read a number from a utility meter. Data collection was completed by either a data logger (64%) or a PC based data logging card (36%).

Communication from the point of collection of the data to the database or end use was completed in a variety of different methods. GSM was most popular as it is reliable and quick to install, TCP/IP in conjunction with auto-email was also popular as it has no running costs. Phone modems and radio communications were also used. On the downsides: GSM is expensive to run, TCP/IP can be difficult to install, and phone modems can be interfered with due to user use (call divert/ fax/answering machine).

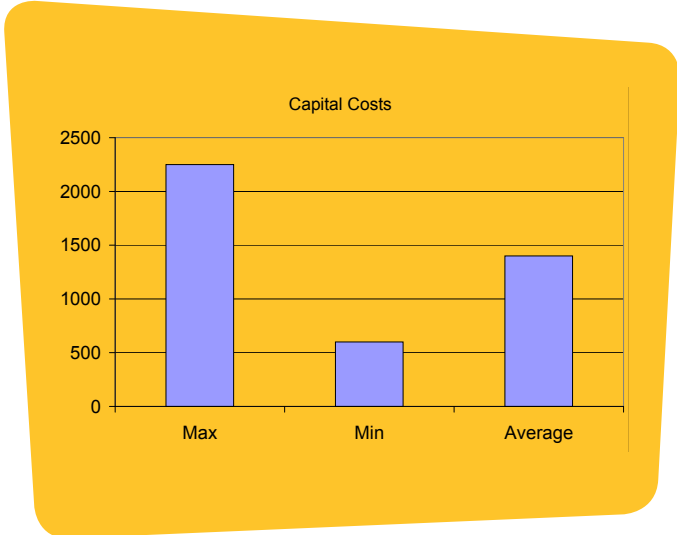


Data analysis: Most users had either an internal (18%) or web based (64%) proprietary system for analysis but usually downloaded the data to a standard data analysis programme that they were familiar with to complete the analysis (e.g. MS EXCEL). There was also an open source analysis tool developed as part of the project.



How much did the monitoring systems cost?

The costs varied substantially from partner to partner due to regional differences, for example the charge to connect a pulse output from a utility meter varied from €100 to €2,000 depending on the country and the meter type.

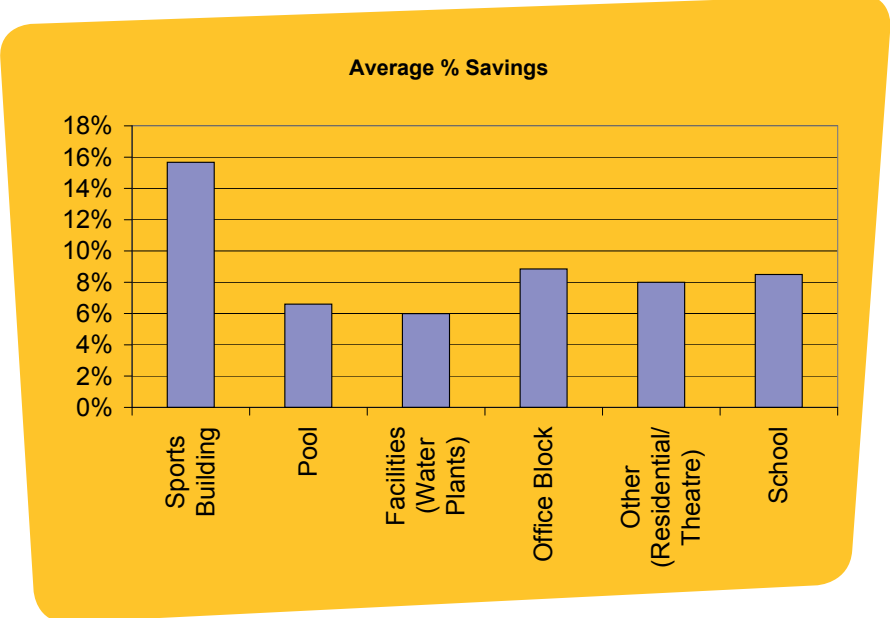


Training:

Over the course of the project there were a variety of models for energy management chosen, one per municipality, one per building or somewhere in between. Each partner held a training course and produced a guide. In total the project trained 46 Energy Managers across 32 Municipalities and in charge of 77 buildings. This guide and some of the training courses are available on the Ener-in-Town website www.enerintown.org.

Savings:

Across all the partners there were a large number of savings projects covering all the main energy using technologies in use. A summary of the energy savings are detailed below, for a more detailed account of the energy savings visit the Ener-in-Town Website on www.enerintown.org. Some of the buildings have only finished the installation of monitoring systems and as a result there are no savings identified to date. Most however have the systems installed for about six months. As a result of this, it would be evident from all partners that these savings are only the first step for each of the buildings concerned, and it is evident that it is an excellent first step!



Ener-in-Town European Partners

EVE (Spain)
www.eve.es

INEGA (Spain)
<http://www.inega.es/>

LDK (Greece)
<http://www.ldk.gr>

TEA (Ireland)
<http://www.tea.ie>

IST (Portugal)
<http://www.ist.utl.pt/>

ADEME (France)
<http://www.ademe.fr>

LEI (Lithuania)
<http://www.lei.lt>

AREAL (Portugal)
<http://www.arenal-energia.pt/>

ZREU (Germany)
<http://www.zreu.de>

AI (Italy)
<http://www.ambienteitalia.it/>

Visit the Ener-in-Town website www.enerintown.org for more information on:

- Monitoring systems
- Case studies on energy savings through low cost measures
- Municipal energy management and model energy management agreements
- Training materials
- Energy Efficient Procurement Guide
- Partner Contact Details



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